

...AUGUST 2010 REGIONAL CLIMATE SUMMARY...

SUMMARY FOR THE SAN FRANCISCO BAY AREA AND MONTEREY BAY AREA...

...ANOTHER RECORD COOL MONTH...

...COOLEST JUNE-AUGUST ON RECORD FOR SOME LOCATIONS...

AUGUST 2010 WAS THE FIFTH CONSECUTIVE MONTH THAT WAS COOLER THAN NORMAL ACROSS BOTH THE SAN FRANCISCO BAY AREA AND MONTEREY BAY AREA. LIKE JULY...AUGUST TEMPERATURES WERE SIGNIFICANTLY BELOW NORMAL. ALSO...AS WAS THE CASE IN JULY...AVERAGE HIGH TEMPERATURES AT A FEW LOCATIONS IN AUGUST WERE THE COOLEST EVER RECORDED FOR THE MONTH. IN ADDITION...THE AVERAGE HIGH TEMPERATURE AT SEVERAL REPORTING LOCATIONS RANKED AS ONE OF THE TOP 5 COOLEST ON RECORD.

GIVEN THE STRING OF CONSECUTIVE COOL MONTHS...IT'S NOT SURPRISING THAT THE SUMMER OF 2010 (JUNE...JULY...AUGUST) WAS ONE OF THE COOLEST ON RECORD.

SINCE LATE SPRING THE WEATHER PATTERN ACROSS THE UNITED STATES HAS BEEN STUBBORNLY PERSISTENT. A RIDGE OF HIGH PRESSURE HAS DOMINATED ACROSS THE EASTERN STATES...PRODUCING WARM TEMPERATURES THERE. AT THE SAME TIME...A TROUGH OF LOW PRESSURE HAS BEEN PARKED ALONG THE WEST COAST. THIS PATTERN HAS BROKEN DOWN ONLY A FEW TIMES DURING THE LATE SPRING AND SUMMER...ALLOWING TEMPERATURES TO BRIEFLY WARM UP ACROSS OUR REGION. BUT FOR THE MOST PART THE TROUGH HAS REMAINED IN PLACE ALONG THE WEST COAST AND MAINTAINED COOLER THAN NORMAL CONDITIONS ALONG WITH A PERSISTENT AND DEEP MARINE LAYER AND MODERATE TO STRONG ONSHORE FLOW. THE TROUGH WAS EVEN MORE PERSISTENT THAN USUAL DURING THE FIRST THREE WEEKS OF AUGUST...HOLDING TEMPERATURES BELOW NORMAL NEARLY EVERY DAY FROM THE 1ST THROUGH THE 22ND. THE TROUGH FINALLY SHIFTED EASTWARD ON THE 23RD AND 24TH... ALLOWING A STRONG RIDGE OF HIGH PRESSURE TO BUILD ALONG THE WEST COAST FOR A FEW DAYS. THE COMBINATION OF A WARM AIRMASS UNDER THE UPPER RIDGE AND LIGHT OFFSHORE FLOW PUSHED TEMPERATURES INTO RECORD WARM TERRITORY FOR THREE STRAIGHT DAYS FROM THE 23RD TO THE 25TH. THE BRIEF HEAT WAVE PEAKED ON TUESDAY AUGUST 24 WHEN MOST CLIMATE STATIONS ACROSS THE AREA SET DAILY HIGH TEMPERATURE RECORDS. HIGH TEMPERATURES ON THE 24TH BROKE RECORDS BY SUBSTANTIAL AMOUNTS... SURPASSING PREVIOUS DAILY RECORD HIGHS BY 10 DEGREES OR MORE. AT THREE LOCATIONS...SAN FRANCISCO DOWNTOWN...MONTEREY...AND THE SALINAS AIRPORT...THE HIGH TEMPERATURE ON TUESDAY AUGUST 24 EITHER EQUALED OR EXCEEDED THE WARMEST TEMPERATURE ON RECORD FOR THE ENTIRE MONTH OF AUGUST AT THOSE LOCATIONS.

THE UPPER LEVEL TROUGH RETURNED BY THE 26TH...AND TEMPERATURES ONCE AGAIN SANK BELOW NORMAL. THE WEATHER REMAINED COOL UNTIL THE LAST DAY OF THE MONTH WHEN ANOTHER BRIEF WARM-UP GOT UNDERWAY.

DESPITE BEING A VERY COOL MONTH OVERALL...THERE WERE ONLY A FEW DAILY LOW TEMPERATURE RECORDS SET DURING THE MONTH...AND ALL OF THEM WERE AT THE OAKLAND MUSEUM WHICH HAS A RELATIVELY SHORT PERIOD OF RECORD OF ONLY 38 YEARS. THERE WERE FAR MORE DAILY RECORD HIGH TEMPERATURES DURING THE MONTH OF AUGUST (SEE LISTING BELOW).

HAD IT NOT BEEN FOR THE BRIEF HEAT WAVE LATE IN THE MONTH...AUGUST WOULD HAVE BEEN THE COLDEST ON RECORD FOR MORE THAN A FEW LOCATIONS.

AN INTERESTING RECORD TEMPERATURE DICHOTOMY OCCURRED IN THE CITY OF MONTEREY. THE AVERAGE HIGH TEMPERATURE IN MONTEREY DURING AUGUST 2010 WAS 64.5 DEGREES F...THE COOLEST ON RECORD. YET...IN THE SAME MONTH...THE TEMPERATURE ON ONE DAY REACHED 96 DEGREES (ON THE 25TH)...WHICH TIED THE RECORD FOR THE WARMEST DAILY AUGUST HIGH TEMPERATURE. OFFICIAL TEMPERATURE RECORDS GO BACK 60 YEARS IN MONTEREY.

AT MOST LOCATIONS...AVERAGE HIGH TEMPERATURES FOR THE MONTH WERE FROM 2 TO 5 DEGREES BELOW NORMAL. LOW CLOUDS ON MOST NIGHTS HELPED HOLD MINIMUM TEMPERATURES UP A BIT. EVEN SO...AVERAGE LOW TEMPERATURES WERE MOSTLY ONE OR TWO DEGREES BELOW NORMAL.

AVERAGE HIGH TEMPERATURES FOR THE MONTH WERE THE COOLEST ON RECORD AT A FEW LOCATIONS...AND WITHIN THE TOP 5 COOLEST ON RECORD FOR SEVERAL OTHERS:

	AUGUST 2010 AVG HIGH	COOLEST AVG HIGH TEMP RANK	YEARS OF RECORD
MONTEREY	64.5	1	60
SAN RAFAEL	76.1	1	60
CARMEL VALLEY	76.0	1	29
ST. HELENA	84.3	2	102
REDWOOD CITY	76.5	2	79
SONOMA	81.0	3	57
MOUNT DIABLO	79.7	3	57
OAKLAND MUSEUM	70.1	3	38
HOLLISTER	77.0	3	31
KING CITY	82.5	3	100
SALINAS	70.4	4	52
KENTFIELD	78.0	5	52
SANTA ROSA	78.5	7	108
SAN JOSE	78.9	8	86

THE SUMMER OF 2010 WILL GO DOWN AS ONE OF THE COOLEST ON RECORD ACROSS THE SAN FRANCISCO AND MONTEREY BAY AREAS. BELOW IS A LIST OF AVERAGE HIGH TEMPERATURES AND AVERAGE AVERAGE TEMPERATURES FOR THE THREE SUMMER MONTHS OF JUNE...JULY...AND AUGUST COMBINED. THE SUMMER 2010 TEMPERATURE AVERAGES ARE RANKED IN COMPARISON TO ALL OTHER SUMMERS OF RECORD IN TERMS OF THEIR COOLNESS.

	SUMMER 2010		2010 RANK		
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	AVG	AVG	AVG	AVG	YEARS OF
	HIGH	AVG	HIGH	AVG	RECORD
MONTEREY	63.8	57.6	1	1	60

SAN RAFAEL	75.8	64.5	1	1	60
MOUNT DIABLO	78.0	67.4	1	6	57
OAKLAND MUSEUM	69.6	62.3	4	2	38
SANTA ROSA	77.7	64.5	4	17	108
SAN JOSE	78.7	67.6	10	33	86
SAN FRANCISCO	64.7	59.0	32	27	136

SIMILAR TO JULY...AUGUST 2010 WAS MOSTLY DEVOID OF PRECIPITATION. MONSOONAL MOISTURE LARGELY REMAINED TO THE EAST OF CALIFORNIA FOR THE ENTIRE MONTH. THE ONLY MEASURABLE PRECIPITATION IN OUR AREA DURING AUGUST WAS IN THE FORM OF DRIZZLE FALLING FROM A DEEP MARINE LAYER. MOST OF THIS OCCURRED CLOSE TO THE OCEAN.

...AUGUST REGIONAL TEMPERATURE SUMMARY...

LOCATION	AVG HIGH	NORMAL HIGH	DEPARTURE FROM NORMAL		AVG LOW	NORMAL LOW	DEPARTURE FROM NORMAL	

NORTH BAY...

KENTFIELD	78.0	84.4	-6.4		52.1	52.5	-0.4
NAPA	79.6	82.7	-3.1		53.3	54.5	-1.2
PETALUMA	77.5	82.2	-4.7		51.8	52.3	-0.5
SAINT HELENA	84.3	88.8	-4.5		53.5	53.8	-0.3
SAN RAFAEL	76.1	81.4	-5.3		53.0	55.1	-2.1
SANTA ROSA	78.5	82.1	-3.6		51.2	52.7	-1.5
SONOMA	81.0	89.3	-8.3		50.1	51.7	-1.6

SAN FRANCISCO PENINSULA...

HALF MOON BAY	65.0	65.8	-0.8		52.4	53.1	-0.7
REDWOOD CITY	76.5	82.5	-6.0		55.0	55.0	0.0
SAN FRANCISCO AIRPORT	71.3	72.5	-1.2		55.8	55.5	0.3
SAN FRANCISCO DOWNTOWN	65.2	68.7	-3.5		53.4	55.6	-2.2

EAST BAY...

BERKELEY	M	70.8	M		M	55.5	M
CONCORD	84.3	88.0	-3.7		55.8	58.7	-2.9
FREMONT	75.9	79.9	-4.0		55.0	57.1	-2.1
LIVERMORE	85.7	88.8	-3.1		54.1	54.9	-0.8
MOUNT DIABLO JUNCTION	79.7	85.1	-5.4		57.4	59.5	-2.1
NEWARK	74.3	77.1	-2.8		56.2	58.4	-2.2
OAKLAND	70.1	73.4	-3.3		54.9	58.4	-3.5
RICHMOND	M	72.0	M		M	56.5	M

SOUTH BAY AND SANTA CRUZ COUNTY...

BEN LOMOND	81.2	85.6	-4.4	49.7	50.5	-0.8
GILROY	M	87.9	M	M	54.8	M
LOS GATOS	81.2	84.9	-3.7	53.5	54.3	-0.8
MOUNT HAMILTON	M	77.8	M	M	62.6	M
SAN JOSE	78.9	82.4	-3.5	56.5	57.6	-1.1
SANTA CRUZ	73.1	75.3	-2.2	52.6	53.0	-0.4
WATSONVILLE	68.9	72.5	-3.6	53.4	53.7	-0.3

MONTEREY AND SAN BENITO COUNTIES...

BIG SUR STATION	72.4	77.4	-5.0	49.5	50.1	-0.6
CARMEL VALLEY	76.0	78.6	-2.6	48.6	49.5	-0.9
HOLLISTER	77.0	81.4	-4.4	51.6	53.3	-1.7
KING CITY	82.5	85.0	-2.5	52.0	52.0	0.0
MONTEREY	64.5	69.9	-5.4	52.0	53.4	-1.4
PINNACLES NATIONAL						
MONUMENT	M	94.2	M	M	50.2	M
SALINAS	70.4	72.8	-2.4	52.8	55.0	-2.2

...AUGUST REGIONAL PRECIPITATION SUMMARY...

LOCATION	JULY TOTAL	AVERAGE AUGUST PRECIP	PERCENT OF NORMAL
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NORTH BAY...

CLOVERDALE	0.00	0.17	0
KENTFIELD	0.00	0.12	0
MUIR WOODS	M	0.17	M
NAPA	0.00	0.11	0
OCCIDENTAL	M	0.26	M
PETALUMA	0.00	0.08	0
SAINT HELENA	0.00	0.09	0
SAN RAFAEL	0.00	0.10	0
SANTA ROSA	0.01	0.11	9
SONOMA	0.00	0.12	0

SAN FRANCISCO PENINSULA...

HALF MOON BAY	0.28	0.27	104
PACIFICA	M	0.11	M
REDWOOD CITY	0.00	0.10	0
SAN FRANCISCO			
AIRPORT	T	0.07	0
SAN FRANCISCO			
DOWNTOWN	0.01	0.09	11

EAST BAY...

BERKELEY	M	0.12	M
CONCORD	0.00	0.04	0
FREMONT	0.00	0.04	0
LIVERMORE	0.00	0.08	0
MARTINEZ	0.00	0.08	0
MOUNT DIABLO			
JUNCTION	0.00	0.09	0
NEWARK	0.00	0.07	0
OAKLAND	0.00	0.10	0
RICHMOND	M	0.10	M

SOUTH BAY AND SANTA CRUZ COUNTY...

BEN LOMOND	0.00	0.15	0
GILROY	M	0.05	M
LOS GATOS	0.00	0.08	0
MOUNT HAMILTON	M	0.09	M
SAN JOSE	T	0.07	0
SANTA CRUZ	0.03	0.11	27
WATSONVILLE	0.09	0.07	129

MONTEREY AND SAN BENITO COUNTIES...

BIG SUR STATION	0.00	0.15	0
CARMEL VALLEY	0.00	0.07	0
HOLLISTER	0.00	0.08	0
KING CITY	0.00	0.05	0
MONTEREY	0.13	0.11	118
PINNACLES NATIONAL			
MONUMENT	0.00	0.10	0
SALINAS	0.11	0.06	183

...DAILY TEMPERATURE RECORDS FOR AUGUST 2010...

DATE	LOCATION	RECORD MINIMUM TEMP	OLD RECORD
8/4	OAKLAND MUSEUM	53	53 IN 1973
8/5	OAKLAND MUSEUM	52	54 IN 1986
8/10	OAKLAND MUSEUM	54	54 IN 1986
8/11	OAKLAND MUSEUM	54	54 IN 2005
8/12	OAKLAND MUSEUM	53	53 IN 1973

DATE	LOCATION	RECORD MAXIMUM TEMP	OLD RECORD
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8/23	SAN RAFAEL	97	94 IN 1974
8/23	OAKLAND AIRPORT	95	88 IN 1959
8/23	OAKLAND MUSEUM	90	90 IN 1971
8/23	SFO AIRPORT	92	91 IN 1959
8/23	SAN JOSE	95	92 IN 1959
8/23	MOFFETT FIELD	93	92 IN 1992
8/23	SALINAS	89	84 IN 1968
8/23	SALINAS AIRPORT	91	84 IN 1968
8/24	SANTA ROSA	106	102 IN 1931
8/24	KENTFIELD	105	103 IN 1931
8/24	SAN RAFAEL	102	94 IN 1971
8/24	NAPA	105	103 IN 1931
8/24	SAN FRANCISCO	98	89 IN 2003
8/24	SFO AIRPORT	99	88 IN 2003
8/24	OAKLAND MUSEUM	99	91 IN 2003
8/24	OAKLAND AIRPORT	99	91 IN 1959
8/24	MOFFETT FIELD	100	93 IN 2003
8/24	SAN JOSE	102	99 IN 1931
8/24	GILROY	106	98 IN 1974
8/24	SANTA CRUZ	101	90 IN 1926
8/24	SALINAS	101	88 IN 2003
8/24	SALINAS AIRPORT	101	88 IN 2003
8/24	MONTEREY	96	83 IN 2003
8/25	OAKLAND AIRPORT	88	86 IN 2003
8/25	SAN JOSE	100	97 IN 1988
8/25	SANTA ROSA	103	101 IN 1999

...MONTHLY HIGH TEMPERATURE RECORDS...

DATE	LOCATION	RECORD MAXIMUM TEMP	OLD RECORD FOR AUGUST
8/25	SAN FRANCISCO DOWNTOWN	98	98 ON 8/01/93
8/25	MONTEREY	96	96 ON 8/01/93
8/25	SALINAS AIRPORT	101	98 ON 8/29/68

...MONTHLY RANKS FOR DOWNTOWN SAN FRANCISCO...

AVERAGE HIGH TEMPERATURE.....65.2.....41ST COOLEST OUT OF 136 YEARS
AVERAGE LOW TEMPERATURE.....53.4.....41ST COOLEST OUT OF 136 YEARS

NOTE: THIS CLIMATOLOGICAL DATA IS PRELIMINARY. FOR OFFICIAL
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